

ABSTRACT OF THE DISCLOSURE

Disclosed is a soft decision decoder, and a log likelihood ratio calculator for soft decision decoding and a method thereof, for realizing a generalized log likelihood ratio algorithm in consideration of channel estimation errors for performing soft decision decoding on QAM signals, which comprises multipliers
5 for multiplying reference signals and channel estimation signals, subtractors for subtracting a receive signal of a receiver from output signals of the multipliers, first and second square calculators for squaring the subtractors' output signals and reference signals, dividers for dividing output signals of the first and second
10 square calculators by addition values, and a comparator for comparing output signals of the dividers.